Amendments to the Claims:

Please cancel Claim 9 without prejudice.

Please amend the claims as shown below. This Listing of Claims will replace prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A method for simulating the behavior of a flexible medium which is conveyed along a conveying path constructed of a pair of conveyor rollers, the method comprising the steps of:

~~dividing the~~defining ~~surfaces of the conveyor rollers into~~ a contact region and a non-contact region of the conveyor rollers and setting a first peripheral speed and a second peripheral speed for the contact region and the non-contact region, respectively, the first and the second peripheral speeds being different from each other; and

performing a simulation such that a conveying force corresponding to the difference between the second peripheral speed and a speed of the flexible medium is applied to the flexible medium when the flexible medium reaches the non-contact region of the conveyor rollers, such that the flexible medium is conveyed at the first peripheral speed when the flexible medium reaches the contact region of the conveyor rollers.

2. (Original) A method according to Claim 1, wherein the pair of conveyor rollers consists of a drive roller and a driven roller and the second peripheral speed is set individually for each of the drive roller and the driven roller.

3. (Original) A method according to Claim 1, wherein the distance between the axes of the conveyor rollers is calculated on the basis of a nip width

which is set in advance.

4. (Original) A method according to Claim 1, further comprising the steps of:

calculating a load torque applied to the conveyor rollers on the basis of a contact force generated when the flexible medium is in contact with a conveyor guide for conveying the flexible medium; and

issuing a warning when the calculated load torque is greater than a driving torque of the conveyor rollers, the driving torque being set in advance.

5. (Currently Amended) An apparatus which simulates the behavior of a flexible medium which is conveyed along a conveying path constructed of a pair of conveyor rollers, the apparatus comprising:

a memory which stores a first peripheral speed and a second peripheral speed, the first peripheral speed and the second peripheral speed being different from each other and being set respectively for a contact region and a non-contact region ~~into which the surfaces~~ of the conveyor rollers ~~are divided~~; and

a processor which performs a simulation under a condition that a conveying force corresponding to the difference between the second peripheral speed and a moving speed of the flexible medium is applied to the flexible medium when the flexible medium reaches the non-contact region of the conveyor rollers and a condition that the flexible medium is conveyed at the first peripheral speed when the flexible medium reaches the contact region of the conveyor rollers.

6. (Original) An apparatus according to Claim 5, wherein the pair of

conveyor rollers consists of a drive roller and a driven roller and the memory stores the second peripheral speed for each of the drive roller and the driven roller individually.

7. (Original) An apparatus according to Claim 5, wherein the processor calculates the distance between the axes of the conveyor rollers on the basis of a nip width which is set in advance.

8. (Original) An apparatus according to Claim 5, wherein the processor calculates a load torque applied to the conveyor rollers on the basis of a contact force generated when the flexible medium is in contact with a conveyor guide for conveying the flexible medium and issues a warning when the calculated load torque is greater than a driving torque of the conveyor rollers, the driving torque being set in advance.

9. (Cancelled)

10. (Currently Amended) A storage medium which stores a program for executing a method for simulating the behavior of a flexible medium which is conveyed along a conveying path constructed of a pair of conveyor rollers, the program comprising the steps of:

~~dividing the~~ defining ~~surfaces of the conveyor rollers into~~ a contact region and a non-contact region of the conveyor rollers and setting a first peripheral speed and a second peripheral speed for the contact region and the non-contact region, respectively, the first and the second peripheral speeds being different from each other; and

performing a simulation under a condition that a conveying force corresponding to the difference between the second peripheral speed and a moving speed of the flexible medium is applied to the flexible medium when the flexible medium reaches the non-contact region of the conveyor rollers and a condition that the flexible medium is conveyed at the first peripheral speed when the flexible medium reaches the contact region of the conveyor rollers.

11. (Currently Amended) A method for simulating the behavior of a flexible medium which is conveyed along a conveying path constructed of a pair of conveyor rollers, the method comprising the steps of:

~~dividing the~~defining ~~surfaces of the conveyor rollers into~~ a contact region and a non-contact region of the conveyor rollers and setting a first peripheral speed and a second peripheral speed for the contact region and the non-contact region, respectively, the first and the second peripheral speeds being different from each other;

performing a simulation such that a conveying force corresponding to the difference between the second peripheral speed and a speed of the flexible medium is applied to the flexible medium when the flexible medium reaches the non-contact region of the conveyor rollers, such that the flexible medium is conveyed at the first peripheral speed when the flexible medium reaches the contact region of the conveyor rollers; and

calculating a load torque applied to the conveyor rollers on the basis of a contact force generated when the flexible medium is in contact with a conveyor guide for conveying the flexible medium.

12. (Original) A method according to Claim 11, wherein the pair of

conveyor rollers consists of a drive roller and a driven roller and the second peripheral speed is set individually for each of the drive roller and the driven roller.